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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,997	09/18/2006	Yuichiro Nakamura	OGOSH61USA	3036
270 7590 11/09/2010 HOWSON & HOWSON LLP 501 OFFICE CENTER DRIVE SUITE 210 FORT WASHINGTON, PA 19034			EXAMINER SHEVIN, MARK L	
			ART UNIT 1733	PAPER NUMBER
			NOTIFICATION DATE 11/09/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@howsonandhowson.com

# Office Action Summary

## Application No.

10/598,997

## Applicant(s)

NAKAMURA ET AL.

## Examiner

MARK L. SHEVIN

## Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 7, 10 and 15-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7, 10, 15-18, and 21 is/are rejected.
- 7) ☒ Claim(s) 19, 20 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Acknowledgement of RCE***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22<sup>nd</sup>, 2010 has been entered.

### ***Status of Claims***

2. Claims 1, 2, 7, 10, and 15-23 filed September 22<sup>nd</sup>, 2010 are pending. Claims 1 and 15 are amended, claims 3-6, 8-9, and 11-14 are cancelled, and claims 21-23 are new.

### ***Claim Rejections - 35 USC § 103***

3. Claims 1, 2, 7, 10, 15-18, and 21, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ueno** (JP 2002-208125 – Full English Translation). The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Ueno discloses sputtering (para 0003) target materials (claims 2-4 and paras 0010, 0015-0017) comprising Cr: 5 - 30 at%, Pt: 5 - 30 at%, B: 0 - 25 at%, and remainder Co (para 0010) which have an average matrix grain diameter of 40  $\mu\text{m}$  (claim 6 and para 0019). The sputtering targets of Ueno are produced by casting (vacuum

melting - para 0023), hot rolling at 50% (para 0020, 0023 as this rolling ratio produces the desired average grain diameter – see Table 1, samples 1-5), with heat treatment coming before or after hot rolling (para 0020).

Although Ueno disclose not specifically disclose that his sputtering targets have the claimed microstructure, it would have been obvious to one of ordinary skill in sputtering targets, at the time of the invention, to have produced the instant sputtering targets as Ueno disclosed a substantially similar alloy composition (overlapping contents of Cr, Pt, B, and Co) produced by a substantially similar process of casting, heat treatment, and rolling. Moreover, one of ordinary skill in the art would have reasonably expected that the sputtering targets to possess the claimed microstructure for the reasons stated above as where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. Furthermore, "when the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not" and "the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on 'inherency' under 35 U.S.C. 102, on '*prima facie* obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same..." (MPEP 2112, section V, para 1).

Furthermore, while Ueno did not disclose the particular composition endpoints, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to select any portion of the claimed compositional ranges, including the claimed ranges, from the overlapping ranges disclosed in Ueno because Ueno finds that the prior art sputtering target compositions in the entire disclosed ranges have a suitable utility and the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages and in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. Furthermore, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation (MPEP 2144.05, section I, para 1 and section II, A, para 1).

With respect to the amendments claim 1 adding "and said target being a hot rolled structure formed as a result of hot rolling at a hot rolling ratio to 15 to 40%" and the amendments to claim 15 adding "hot rolled structure", in this case the structure implied by the process steps are considered when assessing the patentability of the claim as the newly amended claim amounts to a product-by-process claim (MPEP 2113, para 1 and 2). The Examiner contends that one of ordinary skill in the art would not see a distinctive structural difference in the hot rolled product (at 50% or any other percentage yielding a product within the guidelines disclosed by JP '125) and the instantly claimed hot rolled product in the case where the preferred hot rolling rate of 50% in JP '125 and any of the hot rolling rates of 15% to 40% in the instant claims,

especially when comparing the highest rate of 40% in the instant claims with the preferred rolling rate of 50% in JP '125. In fact the claimed product appears to be the same or similar to that of the prior art, for the reasons stated above and in view of the fact that both the instant claims and JP '125 disclose substantially similar Co-Cr-Pt-B compositions, both the instant claims and JP '125 disclose minimizing the average crystal grain size of the Co matrix to less than 50  $\mu\text{m}$  (less than 40  $\mu\text{m}$  in JP '125 – claim 6), and both are produced by casting followed by hot rolling.

Consequently, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983) - See MPEP 2113, para 3.

#### ***Allowable Subject Matter***

4. **Claims 19, 20 and 22** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. **Claim 23** is allowed.

#### ***Response to Applicant's Arguments:***

6. Applicant's arguments filed September 22<sup>nd</sup>, 2010 have been fully considered but they are not persuasive.

Applicants assert (p. 7, para 3 to p. 10, para 3) that JP '125 actually teaches away from both the use of a hot rolling ratio of 25% as well as a hot rolling ratio required and that one of ordinary skill in the art would not expect the claimed microstructure of the present invention to be the same or similar to that required by JP '125 because the target are not produced by a similar process.

In response, the amendments are directed to product-by-process limitations, and the claimed product appears to be the same or similar to that of the prior art, for the reasons stated above and in view of the fact that both the instant claims and JP '125 disclose substantially similar Co-Cr-Pt-B compositions, both the instant claims and JP '125 disclose minimizing the average crystal grain size of the Co matrix to less than 50  $\mu\text{m}$  (less than 40  $\mu\text{m}$  in JP '125 – claim 6), and both are produced by casting followed by hot rolling. Consequently, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983) - See MPEP 2113, para 3.

### ***Conclusion***

- Claims 1, 2, 7, 10, 15-18, and 21 are rejected**
- Claims 19, 20, and 22 are objected to**
- Claim 23 is allowed**

The rejections above rely on the references for all the teachings expressed in the texts of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the texts of the references. To emphasize certain aspects of the prior art, only specific portions of the texts have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since

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other sections of the same reference and/or various combinations of the cited references may be relied on in future rejections in view of amendments.

All recited limitations in the instant claims have been met by the rejections as set forth above. Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121; 37 C.F.R. Part §41.37 (c)(1)(v); MPEP §714.02; and MPEP §2411.01(B).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shevin whose telephone number is (571) 270-3588 and fax number is (571) 270-4588. The examiner can normally be reached on Monday-Friday, 8:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King, can be reached at (571) 272-1244. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

**/Mark L. Shevin/**  
Examiner, Art Unit 1733

October 30<sup>th</sup>, 2010  
10-598,997

/George Wyszomierski/  
Primary Examiner  
Art Unit 1733